

Dissecting the mitotic oscillator

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THE *Xenopus* embryonic cell cycle is driven by a system of regulatory proteins that functions as an autonomous, clock-like oscillator. The oscillator is centered on the protein kinase cyclin-Cdk1, and is built out of interlinked positive and negative feedback loops. We have been dissecting this circuit to understand how the robust oscillations of the embryonic cell cycle arise, and how the oscillations remain synchronized over the large distance scales of the *Xenopus* embryo.